

B. AMENDMENTS TO THE SPECIFICATION

Please amend the specification as noted in the following paragraph:

[0011] In view of the foregoing, the present invention relates ~~[[is]]~~ in general to grid environments and ~~in particular provides a method, system, and program for managing applications in a grid environment. The~~ Still more particularly, the present invention relates to maintaining application performance within a suboptimal grid environment by reconfiguring the application according to an application profile which expresses the operational requirements of an application in a grid environment.

[0012] ~~In one embodiment, A~~[[a]]n application is submitted to at least one resource node from among multiple resource nodes within a grid environment. Then, a~~[[n]]~~ service availability management agent monitors a performance status of the at least one resource node. The service availability management agent compares the performance status with an operational requirement specified for when the application is operating at the at least one resource node. ~~In particular, I~~[[t]]he operational requirement is specified for the platform on which the at least one resource node is positioned. Further, a profile for the application designates ~~specifies~~ the operational requirements for the application across multiple types of platforms. If the performance status does not meet the operational requirement, then the service availability management agent adjusts the use by the application of the at least one resource node and other resource nodes of the grid environment, such that the application continues to operate when suboptimal conditions arise in a grid environment.

[0013] The service availability management agent ~~[[may]]~~ adjusts both the type and amount of use of resources by the application. ~~First, I~~[[t]]he service availability management agent ~~may locate~~ an alternate resource node that meets the operational requirements specified for the application for the type of platform at which the resource node is positioned and relocate the application to the alternate resource node. ~~Second,~~

~~T~~he service availability management agent ~~may identify~~ies a first module of the application from the application profile and send an instruction for the at least one resource node to shutdown the first module. ~~In particular, m~~Modules are independent processing units coordinated through the application. After shutting down a module, the service availability management agent determines whether the application can still function and, if the application can still function monitors the resource nodes to determine whether additional modules need to be shutdown.

[0014] ~~In general, the goal of the~~ An application profile is ~~to express~~es the operational requirements of the application across multiple heterogeneous resource platforms and ~~[[to]]~~ expresses the priority of modular breakdown of an application so that usage of resources by an application can be adjusted when suboptimal conditions are detected for the application. ~~In one embodiment, t~~The application profile is an XML schema that designates the attributes of the application and the performance range for the application when operating on different platforms and when shutting down modules of the application. ~~In an alternate embodiment, the application profile may be implemented through other protocol schemas and data files.~~

[0015] ~~All embodiments, features, and advantages of the present invention will become apparent in the following detailed written description.~~

Abstract, page 53 of the filed specification

A method, system, and program for maintaining application operations within a suboptimal grid environment are provided. An application profile expresses the operational requirements of an application across multiple heterogeneous resource platforms and expresses the priority of modular breakdown of an application so that usage of resources by the application can be adjusted when suboptimal conditions are detected for the application. The application is submitted to at least one resource node from among multiple resource nodes within a grid environment. Then, a service-availability-management agent monitors a performance status of the at least one resource node. The service-availability-management agent compares the performance status with an operational requirement specified for the platform of the at least one resource node in the application profile. If the performance status does not meet the operational requirement, then the service-availability-management agent adjusts the use by the application the resource nodes according to the application profile, such that the application continues to operate when suboptimal conditions arise in a grid environment.